Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Form PCT/IPEA/416
20040483		
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/ES2004/000361	04.08.2004	04.08.2003

International Patent Classification (IPC) or national classification and IPC

A61K31/675, 31/185, 31/53, A61P25/28

Applicant

UNIVERSIDAD DEL PAIS VASCO - EUSKAL HERRIKO UNIBERTSITATEA

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of _____ sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

   a. ☒ *(sent to the applicant and to the International Bureau)* a total of 1 sheets, as follows:

      ☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s))

      _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒	Box No. I	Basis of the report
☐	Box No. II	Priority
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☐	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☐	Box No. VI	Certain documents cited
☐	Box No. VII	Certain defects in the international application
☐	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/ES	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/ES2004/000361

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

☐ international search (Rule 12.3 and 23.1(b))

☐ publication of the international application (Rule 12.4)

☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ the international application as originally filed/furnished

☒ the description:

pages 1-23 as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☒ the claims:

nos. _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* 24 received by this Authority on 26.09.2005

nos.* _____ received by this Authority on _____

☒ the drawings:

sheets 1-9 as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/ES2004/000361

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims		YES
	Claims	1, 2, 5, 6	NO
Inventive step (IS)	Claims		YES
	Claims	1, 2, 5, 6	NO
Industrial applicability (IA)	Claims	1-6	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Documents taken into consideration:

D1: WO 99/38532 A 05.08.1999

D2: British Journal of Pharmacology, vol. 120, pages 954-960. 1997

D3: Journal of Neurosurgery, vol 07, pages 129-135. 2002

D4: Pain, vol. 96, pages 99-105 2002

D5: Pain, vol. 96, pages 99-105 2000

D6: WO 98/03178 A 29.01.1998

D7: EP 1 310 493 A 14.05.2003

D8: WO 03/047515 A 12.06.2003

The present invention relates to antagonists of purinergic receptor P2X7, selected from Evans Blue, NF279, BBG, o-ATP, KN62, TNP-ATP and HMA, pharmaceutical compositions containing same and the use thereof for treating demyelinating and auto-immune diseases, preferably multiple sclerosis.

Documents D1 to D5 relate to various purinergic receptor antagonists such as NF23, suramin, Evans Blue, Trypan Blue, DIDS, PPADS and TNP-ATP, having pharmacological applications such as the prevention of fibrosis and

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

sclerosis, vasoconstrictive response antagonism, vasospasm reversion, abdominal pain reduction and allodynia control. Document D6 relates to the use of P2Y receptor antagonists, particularly P2Y1 receptor antagonists, such as suramin, PPADS and DIDS, for the treatment of demyelinating diseases, including multiple sclerosis. Documents D7 and D8 relate to compounds having P2X7 purinergic receptor antagonist activity and the use thereof for treating auto-immune, inflammatory or degenerative diseases. The compounds are derived from adamantane and L-tyrosine derivatives.

Claims 1, 2, 5 and 6 relate to products (compounds or compositions) defined in terms of the mode of action and therapeutic use thereof. Such reference to the use of the products is considered to be a mere description constituting a technical feature that has no limiting effect for the purposes of assessing the novelty of said claims. Given that the compounds set forth in claims 1 and 2 are known from the prior art, and the P2X receptor antagonist activity thereof has already been disclosed, the above-mentioned product claims cannot be considered novel or inventive (PCT Article 33(2) and (3)).

As regards claims 3 and 4 relating to the use of said products, none of the cited documents describes the use of said products in the treatment of demyelinating and auto-immune diseases, preferably multiple sclerosis. As a result, the subject matter of claims 3 and 4 is considered to be novel and to involve an inventive step (PCT Article 33(2) and (3)).